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The Whately Prize Essay 1887.

W. Mc Donnell.

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" Die Lohnfrage ist eine Culturfrage."—BRENTANO.

" The wages question has been regarded, both by employers and employed, too much as a question of distribution, too little as one of the production, of wealth."—CLIFFE LESLIE.

A HISTORY AND CRITICISM

OF THE

VARIOUS THEORIES OF WAGES:

BEING

The Whately Memorial Prize Essay for 1887.

BY

W. D. McDONNELL.

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THE WHATELY MEMORIAL PRIZE.

On the 13th of May, 1871, the Committee of the Whately Memorial Fund transferred to the Board of Trinity College, Dublin, a sum of £411, 7s. 1d. New Three per Cents., which remained after meeting the expenses connected with the erection of the monument to Archbishop Whately in St. Patrick's Cathedral. The gift was accompanied by a statement, that it was the wish of the subscribers that the dividends on the stock should be allowed to accumulate, and that the sum accrued at the end of each period of five years should be awarded as a premium, to be called the Whately Prize. On the 21st of June, 1886, it was resolved by the Board:—

1.—That the prize be in future awarded to the author of the best essay on a specified economic subject.

2.—That graduates of all chartered universities of the United Kingdom be eligible as candidates.

3.—That the subject be announced at least one year previous to the date for sending in the essays.

4.—That the subject for 1887 shall be "A History and Criticism of the Various Theories of Wages."

CONTENTS.

THE VARIOUS THEORIES OF WAGES.

§ 1. Introductory.—In the infancy of scientific inquiry, it must have seemed to the searcher after truth as if he stood in the centre of a chaos, which not even the most patient investigation could ever reduce to order, or show to be subject to the reign of law. As time went on, and as one class of natural phenomena after another was shown to be subject to definite laws, it began to be suspected that the apparent chaos was merely the result of our ignorance, and that as the light of knowledge grew brighter we should find that everywhere, in the intellectual and moral, as well as in the material, world it is law, and not caprice, that reigns. This may now be said to be admitted, not only by all scientific, but by all educated, men who accordingly hold that if, amid the multiplicity and complexity of economic and social phenomena, it seems hopeless to search for any thread to guide us, we should take courage from the history of scientific progress, being well assured that what seems to us chance is in fact "direction which we cannot see."

The various theories which have been put forward on the subject of wages have been the result of attempts to ascertain the law which regulates an important—perhaps

the most important—class of economic phenomena. One of these theories has become celebrated under the name of the doctrine of the wages-fund, and has, for many years, formed the centre round which the controversies on the subject of wages have mainly revolved—at least in England; and I therefore propose, instead of taking the theories of wages in their chronological order, to commence by giving a short account of the origin of the wages-fund theory; and after having sketched its history and examined its validity, I shall proceed to the consideration of the other theories which have preceded it, or which have taken the field against it.

§ 2. **The wages-fund theory.**—At the close of the last, and the commencement of the present, century both the state of the industrial world in England, and the method of economic speculation then coming into fashion, were peculiarly favourable to the rise of a doctrine which treats the rate of wages as depending on the ratio of a supposed wages-fund to the number of the labouring population. A large accumulated capital existed in the hands of employers, population was increasing rapidly, the working classes were too poor to maintain themselves until the completion and sale of the product, and the national industries were chiefly of a kind which required that a considerable interval should elapse between the execution of the labour and the time when the value of the product could be realized. The labouring classes were, for all practical purposes, excluded from becoming owners or occupiers of land, and the country had long reached the stage of diminishing returns in agri-

culture, so that any addition to the population was generally attended by a decline in the efficiency of labour, and a consequent fall of wages.

Under an industrial regime of this kind, it is evident that wages were, as a rule, advanced out of capital, and the capitalist reimbursed himself upon selling the product just as a bill discounter does on a bill becoming due. The conditions were, as ~~Professor Walker expresses~~ it, financially more favourable, and industrially less favourable, for the payment of wages, than in new countries in which capital is scarce, in which labour is skilful and intelligent, and natural agents highly productive. Economic speculation, at the time to which I refer was carried on mainly from the capitalist's point of view, and it was natural that an individual employer, who saw that he advanced a certain sum to his men in the shape of wages during the period required to fit a particular article for the market, and then received himself the whole price for which it sold, should accept, as universally true, a doctrine which seemed to be in harmony with the facts which fell within his own narrow experience —a doctrine which assumes that wages are not only advanced, but also paid, out of capital, and measured by it, and that the efficiency of labour and the productiveness of natural agents can only affect wages so far as they lead to increased accumulation. Not only was economic speculation carried on too much from the stand-point of the capitalist, but the economists of the earlier Ricardian school lived too exclusively in a world of abstractions; they wanted that "strong instinct for realities" for which Adam Smith was

remarkable, and were too little in the habit of verifying their *a priori* deductions by comparing them with the actual facts of life. They bestowed little observation on the industrial system of their own age and country, and seldom looked to former times or other countries to see how far their theories possessed the universality which was claimed for them.

Such was the general character of the economic world in which the wages-fund theory was first distinctly formulated by James Mill. Indistinct foreshadowings of the doctrine may indeed be found in earlier writers, but I think I am correct in saying that James Mill was the first writer who gave clear expression to it. It was restated and insisted on as an almost self-evident truth by nearly every English economist of the *a priori* school—by McCulloch, and Senior, by John Mill, and Fawcett, and Cairnes—the last of whom was, perhaps, its clearest exponent and its ablest defender.

No direct attack seems to have been made upon it during the first half of the century, although some doubts were thrown upon it, and theories inconsistent with it were advanced. The note of dissent was, however, clearly sounded by Mr. F. D. Longe in 1866, and two years later the objections to it were set forth with much greater ability by Professor Leslie, in an article in *Frazer's Magazine.* The year 1869, however, is the one which has became memorable in the history of the controversy by the conversion of Mr. Mill. In that year Mr. Thornton published his work *On Labour, its Wrongful Claims and Rightful Dues*, and the immediate effect of his performance is described by Professor Walker (*North American Review*, January, 1875) in the

following words :—"No sportsman who had fired at a squirrel, to hear, a minute after, the crashing of boughs above him, and to see a bear come tumbling out of the tree, could have been more astonished than Mr. Thornton must have been, when, promptly on the publication of his work, John Stuart Mill, without a reservation, and even without a parley, surrendered the whole territory covered by the wages-fund flag, with all the materials and properties complete, and marched out without even the honours of war." How far Mr. Mill's conversion was due to Mr. Longe and Professor Leslie we are without the means of judging. He himself seems to have attributed it entirely to the impression produced upon him by Mr. Thornton's book. However this may be, his recantation was unconditional and complete, both as to the theory itself and its corollaries. He declared that Mr. Thornton had deprived of all scientific foundation the doctrine that combinations cannot raise wages, and that the wages-fund theory, which had been a barrier closing the entrance to an important province of economic enquiry, was merely "a shadow that will vanish if we go boldly up to it."

The last chapter in the history of the wages-fund theory is that contributed to it by Professor Cairnes, in *Some Leading Principles of Political Economy Newly Expounded*, which contains a masterly restatement and analysis of it, although he at the same time confesses, strangely enough, that it is not a solution, but merely a statement, of the wages problem—the problem being, in his opinion, to ascertain the causes which lead to an increased demand for labour (that is,

to an increased wages-fund) on the one hand, and to an increased supply of it on the other.

America is the only country except England in which the wages-fund theory has made many converts, and even there the conditions were so unfavourable to its growth that it would probably never have taken root if it had not been transplanted from a more congenial soil. Except in the New England States the practice of advancing wages out of capital is not universally followed even at the present day, and fifty years ago wages were seldom so advanced in any part of the Union. The national industries were chiefly of an extractive kind. The product was capable of being quickly harvested and brought to market; the labourer was usually well off, and able to maintain himself during the interval required for the realization of the value of the product, and where he was unable to do so his wages were partly advanced to him and partly paid when the product was sold. (The stage of diminishing returns had not yet been reached, and an addition to the number of the labouring population was accompanied by an increase of the *per capita* product owing to the concentration of labour and a more effective combination among the men.) It is evident that in such a state of things the economic atmosphere was as unfavourable, as in England it had been favourable, to the growth of the wages-fund theory. In America the facts which came into collision with the theory lay on the surface of the social system. In England they were buried deep beneath the surface, and were only brought to light after a close analysis and a careful comparison of the English social system with those of other countries.

Such being the history of the wages-fund theory, I have next to inquire how far it satisfies the test by which every scientific theory must be tried—the test of explaining the facts. I shall first state the theory; I shall then state the facts; and I shall then consider to what extent it harmonizes with and explains them. The wages-fund has sometimes been understood to mean the sum actually paid in wages, and it has been supposed that the teachers of the theory meant to assert that wages depend on the ratio of this fund to the number of the labouring population; and that all you had to do to find the average rate of wages was to divide the sum actually paid by the number of actual recipients. It is in this sense that Professor Perry appears to understand it when he says:—"There is no arguing against any of the four fundamental rules of arithmetic. The question of wages is a question of division. It is complained that the quotient is too small. Well then, how many ways are there to make a quotient larger? Two ways. Enlarge your dividend, the divisor remaining the same, and the quotient will be larger; lessen your divisor, the dividend remaining the same, and the quotient will be larger."—(Perry's *Elements*, p. 123.) If this is the wages-fund theory, it is no doubt perfectly true, but at the same time perfectly worthless; it is a mere statement of an arithmetical fact which contains, as Dr. Ingram has observed, no economic element whatever; and it seems to me that it would be an insult to the memory of those great men who held and taught it as an important economic truth, to suppose that they meant anything so puerile as this. I therefore assume that they meant by the wages-fund, not

the sum actually paid in wages, but the sum pre-determined and destined by certain fixed economic causes to be paid, and that the doctrine which they taught was that wages depend on the proportion borne by the amount of capital so destined and determined to the number of the labouring population. If the wages-fund, in this latter sense, is capable of being ascertained, and if the facts do not conflict with the theory, then the doctrine as last stated must contain an important economic truth. Let us now, therefore, enquire whether the facts do conflict with it or not. We find two countries, such as England and America were fifty years ago, the former possessed of a large accumulated capital—large, not only absolutely, but large compared to the labouring population—the latter with a small capital, both absolutely and relatively. What would the theory lead us to predict with regard to the rate of wages in these two countries? Surely, that it was high in England and low in America. And yet the fact was just the reverse; and why? For this plain reason, that labour was far more productive in America than in England, partly on account of its own efficiency, and partly on account of the fertility of the natural agents upon which it operated. Can anything more than this one example be required to show that a large wages-fund (in the second of the two senses in which, as I have shown, that term is capable of being understood) is not the *only* thing upon which, the number of the labouring population remaining the same, the rate of wages depends, but that it also depends, and that in a still greater degree, on the efficiency of labour. Wherever you have a body of skilful, industrious, energetic men, and natural

agents of a high productive power, there the reward of labour will be high, even though capital be scarce and the wages-fund small, because it is the product, and not capital, which is the real and ultimate source from which wages are paid. Wherever you have a similar body of men, and similar natural agents, and, in addition to these, a large capital and a large wages-fund, there the position of the labourer will be still better, because the conditions will be *financially*, as well as *industrially*, in his favour, and because the competition of capital for the aid of labour will be keen.

Let us now consider the wages-fund theory as applied to a country in which the stage of diminishing returns has not been reached, and in which an addition to the labouring population will cause an increase in the produce of industry, not merely in proportion to the increase of labourers, but in a greater proportion. What will the effect be upon wages? The product has increased, not only absolutely, but relatively to the number of labourers, and is it not both "morally just and economically possible" that the labourer should obtain a share of the increase? It certainly seems so to me, and the evidence goes to show that he *does* obtain it—not merely ultimately, after the increased production has had time to cause fresh accumulations, *but at once.* So also, by a parity of reasoning, in an old country in which natural agents yield a diminishing return to each additional application of capital, a fall of wages will take place as a consequence of an influx of labourers, because employers in estimating the price at which they can afford to employ the new labour will take into account, prospectively, the diminished return which will

be received upon each successive application of capital. So too, if we take a case in which the increased or diminished productive power is due, not to an increase or diminution of the fertility of natural agents, but to a change in the industrial qualities of the labourer, we get a precisely similar result. It is supposed that the labour of an average Bengalee is from five to eight times less efficient, according to the sort of work you put him to, than that of an average Englishman. If then a body of Bengalee workmen were suddenly substituted for the existing body of English workmen, a great fall in wages would take place. The advocate of the wages-fund theory would explain this by saying that it was caused by the reduction in the wages-fund, consequent on reduced production. But this explanation ignores the fact that the fall in wages will take place *at once*, that is, immediately on the substitution of the less efficient labour of the Bengalees for that of Englishmen, because the employers of labour will foresee a diminution of the product, and will make their calculations accordingly. They will see that because the new men produce less they must be paid less, or else profits will vanish or be converted into a loss.

The wages-fund theory assumes that an employer, in calculating what he can afford to pay his men, thinks only of how much capital he will have after having provided himself with machinery, materials, etc., and it is supposed that he will expend the whole of this residuary capital in the purchase of labour. It assumes that he cannot spend more and that he will not spend less. But will he not also take into account the prospective value of the product? In the

western states of America an employer often commences the industrial year with only a quarter the amount of capital necessary to pay his men. He accordingly agrees to pay them only quarter wages until the product comes to market, and they then receive their share of it minus the quarter which has been already paid to them. Here it is plain that it is to the product that the employer looks as the source from which he is to pay his men, and it is evidently the product, and not the employer's capital, that measures their wages. If, in the following year, the employer has reason to expect that the product will be unmarketable, he will probably suspend operations and employ no labour that year, because the source is dried up from which he had previously paid his men three-fourths of their wages and from which he had repaid himself the fourth which he had advanced. I say that he will probably suspend operations, not that he will certainly do so, for he may continue to produce at no profit, or even at a loss, in order to keep his men together in hope of better times, and because he cannot extricate his fixed capital from the business. But however this may be, it is certain that an anticipated decline in the value or amount of the product will *tend* to make him employ less labour or to employ it at lower rates.

If we leave out of account that share of the produce which goes to the landlord as rent and to the State as taxes, the whole of what remains must be either wages or profit; and it seems to me impossible to adduce a single argument to show that the share of this residue which the labourer obtains depends upon the ratio of the wages-fund to the

number of labourers, which could not also be used to prove that the share of the capitalist depends upon the ratio of a supposed profit-fund to the amount of capital. And yet this has never been put forward as a theory of profits; and why? Because during the period of abstinence the capitalist has always maintained himself, just as the labourer did in America when wages were not paid till the close of the industrial year, and hence it was obvious that his profit came from the product. In England the capitalist did so maintain himself; the labourer did not; and so it seemed as if wages and profits came each from a different source, when in truth the difference was only in the time and manner of payment. The labourer was, as it were, paid by a bill which reached maturity on the day the product was sold; the capitalist was paid by a similar bill; but the labourer had his bill discounted at once by the capitalist, whereas the capitalist waited until his became due and then received the the whole price of the product in liquidation of both bills.

I have already indicated the circumstances which favoured the growth of the theory of the wages-fund. The reason of its having so long retained a hold on men's minds is obvious. It seemed to afford a logical resting-place to the weary enquirer, and to provide him with a compact and portable formula for the solution of a multitude of perplexing questions. It satisfied that craving for simplicity and uniformity which is the last infirmity of the philosophic mind, and which makes it, as Bacon said, "assume and feign in nature a greater uniformity and equality than is in truth." It was popular with employers of labour, because it supplied

them with a ready answer to the complaints of their men, and with social optimists because it enabled them to justify the existing industrial regime. With the working classes, on the contrary, it never was popular, and it did much to discredit in their eyes economic teaching in general. It was natural that they should regard with suspicion and dislike a doctrine which "deprived such agencies as strikes and trades-unions of even a standing in a court of Political Economy" (Walker, *North American Review*, 120, p. 85), and which told them that all their efforts to affect wages were useless which did not either check population or promote accumulation—or at least that the utmost they could accomplish was to accelerate a rise of wages which was already "in the air," and which would equally occur a little later on if they remained passive and avoided the expense of a strike. It was evident that as soon as Political Economy came to be written more from the point of view of the artisan, and less from that of the employer, the wages-fund theory would be placed upon its trial before no very lenient tribunal, and it probably owes its downfall more to this change in the general spirit of economic speculation than to the attacks of Mr. Thornton and Mr. Longe. Opinions which have enjoyed a long popularity are often silently undermined by moral and economic causes, and it is only when these have accomplished their work that the men appear who get the credit of having killed them. If the attack on the theory of the wages-fund had been made twenty years earlier it would in all probability have failed.

The wages-fund theory as taught by some writers,

especially by Mr. McCulloch, professed to furnish a formula, not only for ascertaining the general or average rate of wages, but also for fixing the particular rates prevailing in different employments. These rates, it was maintained, are always such as to distribute the total wages-fund among the various industries, in exact proportion to the severity, duration, and disagreeableness of the labour in each, as well as the time and expense required to learn, and the skill required to exercise it. "Hence the discrepancies," says Mr. McCulloch, "that actually obtain in the rate of wages are confined within certain limits; increasing or diminishing it only so far as may be necessary to equalize the favourable or unfavourable circumstances attending any employment." Mr. McCulloch, and those writers who have followed in his wake, seem to have supposed that in teaching that the level of wages in any trade must be such as to make its "net advantages" (to use Professor Marshall's convenient expression) exactly equal to those of other trades, they were preaching a doctrine of Adam Smith's. Now in no part of Adam Smith's book do we feel "that abiding sense of being in contact with the realities of life," of which, as Dr. Ingram remarks, the reader of that book is always conscious, so much as in the chapter on the rates of wages and profits in different employments; while, on the other hand, in the writings of most of his successors of the English school, we nowhere feel ourselves so far removed from realities as in those parts of their works which deal with this very subject. Adam Smith has shown even more than his usual caution in stating the numerous qualifications and conditions which limit the proposition that

competition equalizes the net advantages of different employments. He has shown that it is only true in the same neighbourhood, and when the labourer is perfectly free to choose and change his occupation, and even in the same neighbourhood, and upon the hypothesis of perfect freedom, he shows that the proposition is only true as regards old established industries, those which are in their normal state, and those which form the main occupation of the men engaged in them. Although Mill has been represented as teaching that competition raises wages to the exact point required to compensate the labourer for the hardships and disadvantages of the business, yet, the doctrine can in reality only claim the sanction of his authority in the same sense in which it can claim the support of Adam Smith's. Indeed, as Professor Leslie observes, it has been the fate of both of these great men to have had some of their views reproduced in such a shape as almost to make one think that the *reductio ad absurdum* of the master was the object of the disciple. Mr. Mill, so far from assuming that the net advantages of different employments are equalized by competition, tells us "that wages are generally in an opposite direction to the equitable principle of compensation, erroneously represented as the general law of the remuneration of labour. The really exhausting and really repulsive labours, instead of being better paid than others, are almost invariably paid worst of all, because performed by those who have no choice." Again, he maintains that women's wages are not determined by competition, and "that the remuneration is greatly below that of equal skill, and

equal disagreeableness in employments carried on by men." He also admits that combinations have been successful in securing net advantages in some trades far superior to those enjoyed by others. McCulloch states that wages in his time were nearer a common level than when the *Wealth of Nations* was written, and were "nearly the same all over the country" (note to his edition of the *Wealth of Nations*, p. 34). But the latter part of this statement is certainly untrue, and the truth of the first part of it, although the evidence is not quite decisive, is very doubtful. Improved communication has, no doubt, done much to facilitate the migration of labour from place to place. Newspapers and advertisements teach the workman where his services are most wanted, and railways and steamers enable him to go there. But can labour migrate from employment to employment much more easily than it could do in Adam Smith's day? I do not say that it cannot do so; I say that it is far from certain that it can, and that many impediments to its movement still exist. Just as improved communications and the influx of gold between 1850 and 1870 destroyed old inequalities of prices and created new ones, so the introduction of machinery and the extent to which the division of labour has been carried have raised up new inequalities in wages, by creating new obstacles which impede the movement of labour from employment to employment, in place of old obstacles which have been swept away. "Whatever Ricardo's hypothesis may lead to," says Professor Leslie, "the real economic conditions of production and distribution have nowhere equalized wages, profits, or rents; they have in fact, in recent

times, produced new inequalities through the different rates at which industrial development has proceeded in different localities, the different natural advantages of different localities, and the rise of such a multitude of special industries, and such continual change in the conditions, that omniscience only could estimate their prospects, or enable competition to equalize them."

I am aware that Professor Marshall has pointed out some cases in which the division of labour has formed a kind of bridge between two trades that were formerly distinct, enabling labour to pass more freely between them. "A country watchmaker," he says, "could not easily become a gunmaker or *vice versa;* but many men in a large watch factory could easily find employment in a large rifle factory. When the late American war came to a close, a famous rifle factory devoted itself to making sewing machines." Such cases as these are, however, the exception and not the rule, and the great number of specialized industrial qualities to which the division of labour has given birth impede the migration of labour more frequently than they promote it. Professor Marshall himself admits that skilled labour migrates from employment to employment much less freely than unskilled labour; while Mr. Giffen has shown that the proportion which the number of skilled labourers bears both to the number of unskilled and to the whole community has enormously increased during the last fifty years, and he tells us that not only has a substitution taken place of artizan labour for rude labour, but "the proportion to the whole community of the higher paid artizan and professional

workers and clerks who are economically members of the working classes, has greatly increased." So that that section of the working class, the members of which, according to Professor Marshall, find it most difficult to change their employments, is on the increase, both absolutely and relatively. It is no uncommon thing to see thousands of skilled workmen unable to obtain employment, while much machinery is standing idle for want of hands, because the skill of the unemployed men is not of the kind required to work it. The factory inspectors reported in 1860, that in London above 90,000 men were out of employment in one set of industries, while in another set a large demand existed for labour to work machinery then idle.

Thus we find that, even as applied to highly civilized communities, the assumption that competition equalizes the net advantages in different employments is only a rough approximation to the truth. How much further then must it be from it in those countries where custom, to a greater or less extent, excludes competition—in which wages are often paid in kind, or in different currencies, and in which the most skilful statistician or actuary would sometimes find it difficult, as between different industries, to determine which of them possessed net advantages superior to the others. It is difficult for an Englishman or an American of the present day to form an idea of the degree to which, in some parts of the world, the social organism is, as it were, encased in a crust of custom which makes it impossible for the workman to seek the best market. And, even if nothing prevented

him from seeking it, the knowledge that would enable him to find it may lie far beyond his reach.

These considerations lead me to the conclusion that that branch of the wages-fund theory which deals with the problem of particular wages rests upon assumptions which are only true of a small part of the world, and even of that small part they are only true when taken subject to a number of limitations which have been ignored—not indeed by all—but by a great number of English economists. It is impossible not to join with Professor Leslie in lamenting that the earlier disciples of Ricardo, instead of assuming an equality of wages which had no real existence, did not search out the causes of existing inequalities so as to pave the way for their removal. Even granting that the scientific economist is going beyond his province when he gives advice, or proposes remedies, he is certainly well within it when he points out the causes of evils, leaving it to others to suggest the cure.

§ 3. View taken of the wages question by Adam Smith.—I have placed the wages-fund theory in the forefront of this discussion, because I think it important to determine the source from which wages proceed before attempting to criticize the other views which have been taken of the subject. My examination of that theory has led me to conclude that, although capital is not without an influence on wages, it is the product that forms the true and ultimate source from which they come, and that it is therefore on the efficiency of labour that they mainly depend. I now proceed to examine, by the light of this important truth,

some of the other solutions of the wages problem which have been offered to the world.

According to Adam Smith "in that original state which precedes the appropriation of land and the accumulation of stock" the labourer produced his own wages. He received the whole product, because there was neither landlord or capitalist to claim a share of it. When society had emerged from this primitive condition land became private property, the assistance of the capitalist became indispensable to the labourer, and the wages problem lost that character of extreme simplicity which had distinguished it in the primitive state. The shares of the landlord and capitalist were determined by causes with which Adam Smith was unacquainted, and the share of the labourer was determined, according to him, by a struggle between the workman and his employer, each of them combining, the one to raise, the other to lower, the wages of labour. In this contest the capitalist, he considers, generally had the best of it; but there was a point below which he could not permanently force wages. "A man," he says, "must always live by his work and his wages must be at least sufficient to maintain him." This furnished the minimum. If wages ever fell below this rate, "the lowest which is consistent with common humanity," the check given to population soon brought them back to it. How far wages might rise above this point was determined by "the demand for those that live by wages," and this demand "necessarily increases with the increase of the revenue and stock of every country and cannot possibly increase without it." It is not because a country is rich

that wages in it are high, but because it is growing rich fast. Wages, he maintains, were higher in America than in England because, although America was a poorer country than England, its wealth was increasing faster. "It is in the progressive state, while society is advancing to further acquisition, rather than when it has acquired its full complement of riches, that the condition of the labouring poor, of the great body of the people, seems to be happiest and most comfortable. It is hard in the stationary, and miserable in the declining state."

Such is Adam Smith's contribution to the solution of the problem of *general* wages. The necessities of the labourer fix a minimum, and wages may rise indefinitely above that minimum, according to the rate at which the country is increasing in wealth. He soon loses sight of the truth, which, when speaking of the primitive state before land was appropriated and stock accumulated, he clearly saw—namely, that the product is the source of wages, and that efficiency of labour tends to raise them. Looked at by the light of this important truth, it is easy to see why it was that wages were so much higher in America than in England. Labour was at least as skilful and intelligent in the former as in the latter country, and natural agents were far more productive. The product obtained by a given expenditure of labour and capital was therefore larger, and the capitalist, while reaping large profits himself, could afford to purchase the labourer's assistance in the work of production upon liberal terms; or—to state the same fact as viewed from the labourer's side—the labourer could afford, while himself

pocketing high wages, to purchase the co-operation of the capitalist, by allowing him to retain high profits. What made it possible for wages to be high concurrently with profits was that the product was large, and the product was large because labour was efficient. If it be true that wages are paid from the product, and that when labour is efficient wages are high, then it is clear that a country need not be advancing in wealth in order that wages may be maintained above the "lowest point consistent with common humanity," and that in a stationary state the condition of the labourer may be one of comfort and contentment. If we suppose a flourishing colony, possessed of rich mines and a fertile soil, and equipped with all the resources of civilization—roads, railways, harbours, machinery, and peopled with an intelligent and energetic race of men—if we suppose such a country as this to be stereotyped and reduced to a perfectly stationary state, the labourer may continue to the end of time to enjoy the same comforts and conveniences as when the onward movement was arrested, because the number of his class, the efficiency of his labour, and the amount and distribution of capital will remain the same. Whether the stationary state would be, for any particular country, a desirable one or the reverse, must depend upon the stage of industrial evolution at which it is reduced to that condition. If Adam Smith had been acquainted with the law of diminishing returns, of which he seems only to have obtained occasional glimpses, and if he had kept steadily in view the connection between the efficiency of labour and its reward, he would have given the true explanation of the phenomenon of wages being high

in America and low in England, and he would, in all probability, have been led to a correct solution of most of the problems of distribution.

It has sometimes been supposed that Adam Smith held the wages-fund theory; and one passage (vol. i. p. 92) in which he speaks of the demand for labour as determined by "the funds destined to the payment of labour," might, if it stood alone, bear that interpretation. But the rest of the chapter in which that passage occurs shows that such was not his meaning; and his doctrine that industry is limited by capital, which has sometimes been identified with the wages-fund theory, has no necessary connection with it. His views, and those of Ricardo, as to the necessity of a subsistence fund prepared the way for the wages-fund theory, and led up to it, but they are, at the same time, distinct from it.

§ 4. **Views of Ricardo.**—Adam Smith had probably taken his idea of a minimum of wages from the Physiocrats;* Ricardo took it from Adam Smith, and called it the natural price of labour. According to him there is a market rate and a natural rate of wages, just as there is a market price and a natural price of commodities, and the market rate has a constant tendency to conform to the natural rate. The market price of labour is determined by the proportion of the supply of labour to the demand for it; the natural price, by the price of the necessaries and conveniences required to support the labourer and his family. If these rise in price

* "En tout genre de travail il doit arriver, et il arrive, que le salaire de l'ouvrier se borne à ce qui est necessaire pour se procurer sa subsistence."—TURGOT.

money wages must rise to enable the labourer to obtain the same quantity of them, or else population will not be kept up. If they fall in price and money wages remain the same, the labourer will receive more than the "natural" amount of food, etc., and an increase of population will reduce money wages, that is, will bring the market rate of wages back to the natural rate. Just as Adam Smith admitted that his minimum of wages might be more than enough to keep the labourer and his family alive and in working order, so Ricardo admitted that his natural rate "essentially depends on the habits and customs of the people," and might be higher at one time or in one country than another; so that the minimum of Adam Smith, the natural rate of Ricardo, and the moral minimum of John Mill are different names for the same thing. Ricardo's answer to the question—What fixes the natural rate of wages?—that it is the price of commodities on which wages are expended, is merely a statement, not a solution of the problem. To the question why—the price of commodities being the same—is the natural rate higher in one country than another?—he gives no answer. If pressed for one he would perhaps have referred to the margin of cultivation as determining for any particular country and time the amount of necessaries and conveniences which the labourer could obtain by a day's labour; but this would only be pushing the difficulty a step further back, for the question would still have remained, why is the margin of cultivation higher in some countries than in others? and why do the people of some countries maintain a higher standard of comfort than those of others?

And these are questions with which neither the Ricardian method nor the mind of Ricardo himself were well calculated to deal.

Ricardo, as well as Adam Smith, has had the wages-fund theory attributed to him, but upon equally slender grounds. It seems clear, however, that the language used both by Adam Smith and Ricardo on the subject suggested the doctrine of the wages-fund to those writers by whom it was first formulated. When Ricardo speaks of the supply of, and the demand for, labourers as determining wages, it is the market rate which he has in view, and he merely regards the proportion of capital to population as part of the mechanism through which the natural rate acts upon, and controls, the market rate. With him the market rate depends upon the natural rate, the natural rate upon the price of necessaries. "With every improvement in society," he says, "with every increase in its capital, the market rate of wages will rise; but the permanence of the rise will depend upon the question, whether the natural price has also risen; and this again will depend on the rise in the natural price of those necessaries on which the wages of labour are expended." It deserves also to be noticed that Ricardo admits that to whatever extent wages depend on the increase or diminution of capital, to exactly the same extent do they depend on the efficiency of labour. "In different states of society," he tells us, "the accumulation of capital, as the means of employing labour, is more or less rapid, and must, in all cases, depend on the productive powers of labour." And if he admits, which he seems to do by im-

plication, that the natural rate of wages depends on the margin of cultivation, this includes an admission that they depend on the productive power of labour, since this varies with the margin of cultivation.

If there be a partial truth in Ricardo's view, that the standard of living controls wages by maintaining them at a point below which they cannot fall without giving a check to population, it is also true (and this Ricardo failed to see) that the productiveness of labour and a consequent rise of wages may exercise a strong influence on the standard of living. A sudden rise of wages may, as Mill has shown, if maintained during a sufficient period, create a new and higher standard of living; and thus the standard of living may sometimes depend on wages, as wages may upon it. If a high standard of living is sometimes the cause of the labourer's wages being high, it is much oftener the effect of his prosperity. If Ricardo had attended more to actual facts he could hardly have failed to see that the labourer's reward is usually determined, not by his wants, but by the value of his labour—that one man is paid more than another, not because he eats more or better food, or has a higher standard of comfort, but because his labour is worth more to the man who employs him. "The slave and the domestic animal," says Mr. Senior, "are fed according to their necessities; the free labourer according to his value." —(*Lecture on the Cost of Obtaining Money*, p. 10.)

Professor Jevons has observed that Ricardo's mode of reasoning from the formula—product = wages + profits— is radically fallacious, because it involves the attempt to

determine two unknown quantities from one equation. "I grant," he says, "that if the produce be a fixed amount, then if wages rise profits must fall, and vice versâ. Something might perhaps be made of this doctrine, if Ricardo's theory of a natural rate of wages, that which is just sufficient to support the labourer, held true. But I altogether question the existence of any such rate." Ricardo would, perhaps, in reply to this, have pointed to those passages in which he admits that the natural rate of wages varies with the habits and customs of the people. But Professor Jevons is nevertheless right; for, notwithstanding this admission, a *tacit* assumption of a fixed natural rate, just sufficient to supply necessaries, underlies Ricardo's argument and is essential to its validity.

§ 5. **Views of Jevons.**—The authority of the wages-fund theory had, as we have seen, been considerably shaken by the attacks of Longe, Leslie, and Thornton; it had been still further discredited by Mill's repudiation of it, and it has more recently, in the opinion of its enemies, received its death blow from Professor Walker. It has therefore become incumbent on those persons who accept this as the result of the controversy, either to make some attempt to fill the void which has been created in economic doctrine, or to show that this cannot be done. Mr. Thornton made no attempt to fill the gap, admitting that he was himself an architect of ruin, and that his work was one of mere destruction. Professor Jevons has, however, made an able and ingenious attempt to supply the place of the abandoned doctrine, and his theory purports to give us a calculus, by

which to measure the proportions in which labour and capital share the product which is the result of their co-operation. He applies to the solution of the problem the same principle of final utility, which furnishes, in his opinion, the key to the problem of value, of which, indeed, he regards the wages problem as one particular branch. He treats the labourer as a purchaser of the aid of the capitalist; and just as the price which a purchaser will give for a loaf is not determined by the utility of a loaf to a starving man, so the share of the product which the labourer will sacrifice, in order to obtain the co-operation of capital, is not determined by the utility of those earlier portions of capital, with the help of which the labourer can as little dispense as a starving man can dispense with bread. It is not even determined by the utility, or advantage to the labourer, of the whole mass of capital. It is the *final*, not the *total*, utility both of bread and of capital, that determines what will be given for each. If we suppose all the capital in the world to be divided into one hundred parts which have come successively into existence, and call the first of these the first increment of capital, the next the second increment, and so on, the value to the labourer of each successive increment is less than that of the preceding one. The effect of the earlier increments in adding to the amount produced is so great, that the labourer is compelled by self-interest to offer high terms to the capitalist; and the large amount of the product enables him both to keep his bargain and to benefit by it. With each successive increment the labourer's need for capital is more and more nearly satisfied, and the rate of interest, from having been

almost unlimited, will fall to a rate corresponding, not to the whole advantage to industry of all the capital in existence, but to the utility of the last increment. It is by the utility or advantage to industry of this final increment, that the bargain between the labourer and the capitalist is determined, and the share of the capitalist having been thus ascertained, the share of the labourer is at once known.

Now it is easy to see that the weak point in this theory is that on which Professor Sidgwick has laid his finger. It only settles the distribution of the produce between employers and employed, so far as the employer's share consists of interest. It deals with the employer only in his capacity of capitalist, and leaves wages of superintendence out of account. This obvious objection appears to have occurred to Professor Jevons himself, and he endeavours to meet it by saying (*Theory of Political Economy*, p. 259) that "in the equation—produce = profits + wages—the quantity of produce is essentially variable, and profit is to be first determined. If we resolve profit into wages of superintendence, insurance against risk, and interest, the first part is really wages itself; the second equalizes the result in different employments; and interest is, I believe, determined as I have stated." The answer to this, however, is as clear as the objection which it is meant to obviate—namely, that wages of superintendence cannot, in any philosophic view of the subject, be placed in the same class with other kinds of labour. The labour of the entrepreneur does not increase in proportion to the amount of capital of which he superintends the application, but his remuneration does increase in proportion, or

nearly in proportion, to it; so that it is evident that on whatever principle his remuneration depends, it is an entirely different one from that which regulates the wages of other kinds of labour. Moreover, as Professor Sidgwick has shown (*Fortnightly Rev.* vol. xxxii. p. 412), Professor Jevons has overlooked the fact, that the entrepreneur will require to be remunerated for the trouble of superintending the employment of the last increment of capital, so that the increment of produce, which the last increment of capital enables the labourer to obtain, cannot be taken as the measure of interest, because we have no means of settling the proportion that is absorbed by the wages of superintending the last increment of capital. The product has to be divided (leaving rent and taxes out of account) between the owners of the capital, the entrepreneur, and the labourer; Professor Jevons determines the share of the first of these, but gives us no clue as to how the remainder is shared by the entrepreneur and the labourer. This leaves his theory open to the full force of his own criticism on Ricardo's theory, that it involves the attempt to determine two unknown quantities from one equation.

A singular feature in Professor Jevons' treatment of the question is, that while he speaks of the wages-fund theory as "simply a truism," and denounces it as being "wholly illusory as a real solution of the problem," he at the same time admits it to a subordinate place side by side with his own theory. He is careful to explain that wages are only determined "ultimately, that is, in the long run, and in any one branch of employment," by the fact that the rate of interest which the capitalist can exact is fixed by the advantage of

the last increment of capital. In the meantime he admits that the proportion of capital appropriated to the payment of wages to the number of labourers is what settles the *fluctuations* of wages. "The amount of capital," he says (page 261), "will depend on the amount of anticipated profits, and the competition to obtain proper workmen will strongly tend to secure to the latter all their legitimate share of the ultimate produce." If we take this statement, not as applying to the capital of particular industries, but to the aggregate capital of the country or of the world, the answer to it seems to be, that it may happen, as it has happened in America, that capital is so scarce as to make it impossible for the employer to advance to the labourer "his legitimate share of the ultimate product," and he may have to agree to advance a part only of his wages, and to pay him the balance when the product is sold; so that although the labourer will receive his legitimate share, that share will be greater than it would be if it depended on the amount of capital. Moreover, it is not true that "the amount of capital will depend on the amount of anticipated profit." An anticipated high profit may affect the amount of capital in particular trades, by attracting capital into them from other trades; but a sudden discovery that profits *generally* are going to be higher next year than they are now, can only affect the aggregate capital of the country infinitesimally, by the small additional saving which it may cause in the interval.

§ 6. View of Longfield.—Neither Professor Jevons nor any of his critics seem to have been aware that a theory of wages, not indeed identical with, but still closely resembling

his, had been put forward by Judge Longfield, in his lectures delivered before the University of Dublin in 1833-4. Professor Jevons has, in speaking of Professor Hearn's admirable work, *Plutology*, attributed the fact of its having received less attention than its merit deserves to its singular title and the distant residence of its author. The fact that he himself seems never to have heard of Longfield's lectures, proves that for practical purposes, and so far as the commerce of ideas is concerned, Ireland is even a more "distant residence" than Australia. Judge Longfield "extends" (to use his own words) "to the profits of capital that principle of an equality between the supply and the effectual demand which in all cases regulates value. . . . In the case of capital and profits this equality between supply and the effective demand is produced by such a rate of profit, as is equal to the assistance given to labour by that portion of capital which is employed with least efficiency, which I shall call the last portion of capital brought into operation, and for the reasons already mentioned, the rate of profit cannot be much higher or lower than this." (Lecture ix. p. 193.) The rate of profit having been thus determined, he tells us in the following lecture (x. p. 215) that "the wages of labour depend upon the rate of profit and the productiveness of labour employed in the fabrication of those commodities in which the wages of labour are paid, and therefore the comforts of the labourer will depend on the rate of profits and the relative value of his labour, and the productiveness of that labour which is employed in fabricating those commodities on which he wishes to expend his wages."

With the soundness of Longfield's theory of profits I am not here concerned. What I wish to point out is the close resemblance between his theory of wages and that of Jevons, and to call attention to the fact that it was published twelve years after the wages-fund theory had been formulated by James Mill, and while McCulloch and Senior were preaching it. It is certainly a singular fact in the history of the wages controversy, that such a theory should have been advanced at such a time, and that it should never have been noticed by any English economist. It will be seen from the extracts which I have given, that it is the rate of profit, and not merely the rate of interest, as in Jevons' theory, that Longfield treats as being determined by the utility of the last increment of capital.

Professor Jevons' *Theory of Political Economy* appeared in 1871. In the following year Mr. L. Shadwell, independently of Jevons, published an article in the *Westminster Review*, in which he explained a theory of wages of which, in a subsequent work, entitled *A System of Political Economy*, he speaks as being identical with that of Jevons. It does not seem, however, that there is any other point of contact between the views of these two writers, than the great stress laid by both of them on the connection between the efficiency of labour and the reward of the labourer. The views of Professor Hearn, whose *Plutology* was published about ten years before Professor Jevons' book, approach more closely to those of Longfield and Jevons. Unfortunately the value of the excellent chapter of the *Plutology* on the adjustment of the terms of co-operation, is

diminished by the author's refusal to treat the question of real wages as one which lies within the province of the economist. He considers that it belongs to the economist to ascertain the amount of money which labour realizes, but to "follow the purchase-money of labour into the labourer's hands, and to make inquiries as to its application, belongs rather to the practical statesman" (*Plutology*, p. 330). This seems to me to amount to an admission, that the material welfare of the majority of the community is a subject with which political economy does not concern itself, since it only gives us, in terms of money, the labourer's share of the product, without telling us what amount of the "necessaries, conveniences, and amusements of life" that share will command.

§ 7. **View of Walker.**—The theory of Professor Jevons has been adopted with some modifications and improvements by Professor Walker, a writer who has made the subject of wages peculiarly his own, and who, by his fresh and vigorous treatment of it, has placed many old ideas in a new and striking light. He regards the product as being divided into four shares—rent, interest, profits (which term he limits to the earnings of the entrepreneur), and wages. According to him, rent is ascertained in accordance with the Ricardian formula, interest is determined by the supply of, and the demand for, capital, profits, by a principle exactly analogous to that which determines rent, and the residue of the product forms the wages of labour. This order, it should be observed, of considering the sources of revenue differs from the usual one except as regards rent. According

to the Ricardian doctrine, as condensed by De Quincey, "profits are the leavings of wages." According to Jevons, Longfield, and Walker, on the contrary, "the wages of a working man are ultimately coincident with what he produces after the deduction of rent, taxes, and the interest of capital." These words are Jevons' but they are quoted by Walker (*Pol. Econ.* p. 266) as containing a substantially accurate statement of his own view. As regards the determination of the share of the entrepreneur, which, as we have seen, is the weak point of Jevons' theory, Walker attempts with great ability and ingenuity to show that it is determined exactly as rent is determined under Ricardo's, or rather Anderson's, law. He points out that the profits of the entrepreneur are the result of the exceptional abilities or opportunities which he commands, just as rent arises from the superiority of some land and the necessity of cultivating inferior land. As there is a no-rent stage of cultivation, so there is a theoretical no-profits stage of production, when the number of men of exceptional abilities of the kind required by an entrepreneur is more than sufficient to do the work to be done. "Profits," he says, "are drawn from a body of wealth which is created by the exceptional abilities or opportunities of those employers who receive profits measured from the level of those employers who receive no profits, just as all rents are drawn from a body of wealth which is created by the exceptional fertility, or facilities for transport of produce, of the rent lands, measured from the level of the no-rent lands." (*Pol. Econ.* p. 253.) It is evident that a theory

of distribution such as this places the labourer in a position widely different from that which he occupies if the theory of the Ricardian school is sound. Instead of having his wages determined by an actual or moral minimum, and limited by the amount of capital, he becomes the residuary claimant who benefits by almost every improvement in production. Under the wages-fund theory, such improvements can only benefit the labourer by first benefiting the capitalist, whose increased profits will lead to increased savings. Professor Walker, on the contrary, maintains that an increased efficiency of labour would be accompanied by a rise of wages, even though capital and the wages-fund might be reduced.

I have been careful to limit Walker's statement that all mprovements in production enure to the labourer's benefit, by saying that *nearly* every improvement will do so, because when the improvement is one which is applicable only to the production of articles not used by the labourer, he *may* derive no benefit from it at all, and in no case does he derive so large a benefit from such improvements as from those which cheapen the articles on which his wages are expended. Suppose an improvement to take place which reduces by one-half the cost of producing velvet in a country which does not export velvet; and suppose further that the consumers of velvet continue, after its reduction in price, to consume the same value, and double the quantity, of it—in such a case, which, of course, is not a very likely one to happen, the labourers will remain just as they were. But if the consumers of velvet only increase their consumption of that article by one-half, in consequence of its reduced

price, and if they save, as it is probable they will do, a part of the sum previously spent by them upon velvet, the improvement will in the end have benefited the workmen. Part of the labour and capital which had been employed in the production of velvet will be set free, and part of the liberated portion may be employed in the production of commodities consumed by labourers, since, on the assumption that the consumers of velvet save a portion of what they had previously spent on velvet, the whole of the labour and capital liberated from the velvet trade will not be required to produce the articles to which the consumers of velvet transfer their demand. In the case which I have put, of the cost of producing velvet being reduced to one-half, and the consumers using double the previous quantity, I have supposed that velvet does not form an article of export. If, however, it does form an article of export, or if the reduction in price opens a foreign market for it, then, in either case, a benefit must accrue to the labourers, because by expending the same amount of labour and capital as before, the country will obtain a greater amount of *all* foreign commodities, and some of these will be commodities consumed by the labouring class and will fall in price. Even in the case put by Mill, in his chapter on International Value, in which the foreign demand for the cheapened commodity increases in a proportion less than that of the cheapness, so that the equation of international demand is altered to the disadvantage of the country possessing the improvement—even in this case the country will obtain its imports by a smaller expenditure of labour and capital after

the introduction of the improvement, because the increased quantity of the cheapened commodity, which the foreigner obtains, costs less to produce. A labourer producing velvet for the foreign market is really producing the imports which that velvet purchases, and every increase in the efficiency of his labour cheapens those imports of which he is the indirect producer. I have dwelt at some length upon this point in connection with Walker's theory, because he usually expresses himself as if every improvement whatever, in production, must enure to the benefit of the labourer; and although this is true of the great majority of improvements —especially of those discoveries which enable man to control the great forces of nature and make them subserve many productive purposes—still there will be some cases in which the consumers of luxuries will reap the entire benefit, leaving both labourers and capitalists as they were, except so far as the latter may gain as consumers of the cheapened commodities.

Professor Walker's theory has been subjected to a rather severe criticism by Professor Sidgwick in his article on the wages-fund theory (*Fortnightly Review*, vol. xxxii. p. 410). He agrees with Walker in thinking that wages may be philosophically regarded as paid out of current produce, but he maintains that he has failed to determine what share of the product goes to the labourer, and he holds that when Walker asserts that "the product furnishes at once the motive to employment and the *measure* of wages," he is confounding "measure" with limit. When Professor Sidgwick's article was written (1879), Walker's *Political*

Economy, which contains a more careful, as well as a more concise, statement of his theory of distribution than his work on wages, had not appeared, and it was against the views contained, or supposed to be contained, in the latter work that Professor Sidgwick's observations were directed. Professor Sidgwick would now probably admit that Walker has made a very able and ingenious attempt to determine the labourer's share of the product, or, at least, that he has faced the difficulty, which Jevons evaded, of determining the share of the enterpreneur. As to the objection that Walker confounds "measure" of wages with "limit," he expressly meets this by saying (*Political Economy*, p. 381) that when he makes the product the measure of wages, he is not to be understood to mean that wages equal the product of industry, but that "the amount to be paid in wages is some part of the product, the ratio between the two varying, probably, from time to time, from causes innumerable, but being for any given moment fixed by existing conditions." It does not seem to be an improper form of expression to describe the share of a residuary legatee as "measured" by the amount of the testator's personalty, because anyone who knows the amount of the personalty can ascertain the residue by deducting the specific and pecuniary legacies. It is in this sense, and in this only, that Walker speaks of the product as measuring wages.

§ **8. View of Professor Marshall.**—Professor Marshall in his excellent little book, *The Economics of Industry*, has taken up a position on the wages question about midway between the position of Professor Jevons and that

occupied by Walker. Rent he treats as being determined in the usual way, and the problem which then remains is the distribution of the "wages and profits fund," an expression for which, after using it once, he substitutes "earnings and interest fund." The change is significant, because his reason for making it is that he considers that earnings of management should be classed with other earnings, and not with interest, although he admits that the enterpreneur class is "to some extent a separate class from those who get earnings of other kinds." Accordingly, the problem which he sets himself is to "seek for the laws which determine in the long run that remuneration of abstinence which is called interest, and those various remunerations of industry which are called earnings." The rate of interest, he tells us, depends on the "urgency of the demand of industry for capital," and this demand is constantly increasing because every important invention increases the scope for the profitable employment of capital. The rate of interest would therefore be constantly rising, were it not that the tendency of the increasing demand of industry for the aid of capital to raise interest, is counteracted by the tendency which the increase of capital has to lower it. Thus his theory of interest substantially coincides with that of Jevons, whose language he almost uses, when he says that, "the current rate of interest measures the final utility to each borrower; that is, the advantage to him of that capital which he is only just induced to employ." The interest fund being thus determined, it remains to enquire how the earnings fund is divided among the three classes of skilled labourers, un-

skilled labourers, and those possessed of "business power," that is, the entrepreneurs. This, he tells us, is effected by the competition of these classes for each others aid in the work of production; and the share of the produce which is thus determined to go to skilled labour is again subdivided among the various grades of skilled industries by the same principle.

The weak point in Professor Marshall's theory appears to be, that, although he recognizes the entrepreneur as belonging to a separate class from other earners, he nevertheless classes his earnings with the earnings of other kinds of work, "because," as he says, "they are similar in their nature to other earnings and are in the long run governed by the same laws." Having taken up this wrong position (as it seems to me to be), he afterwards almost abandons it, and on several occasions uses language which seems to admit that earnings of management are regulated (as Walker contends) by a principle strictly analogous to that which determines rent. Thus he tells us that "while *profits* on capital invested in education is a specially important element in the income of professional men, *rent* of rare natural abilities is a specially important element in the incomes of business men."* And again, "That part of a man's wages which he owes to his education may be regarded as a kind of profit on the capital invested in it; that part which he owes to exceptional natural qualities may be regarded as a kind of rent; that is, it is

* "The gains which persons obtain by their special taste for an employment which is usually regarded as onerous, are of the nature of rent, and deserve more attention than economists have been willing to bestow upon them."—Bastable's *Theory of International Trade, p.* 41.

the income derived from an agent of production the supply of which is determined by natural causes, and not by the deliberate outlay of human effort for the sake of future advantage." In another place he observes that "The laws which govern the normal earnings of management appear at first sight to differ much, and they really do differ a little, from those which govern the normal wages of skilled labour; the chief difference arising from the fact that the earnings of management can be obtained only by those who have the control of capital;" and again "The earnings of management in large businesses must be, on the average, higher than those in small; and they even give some reason for thinking that the average earnings of management in different businesses in the same trade vary almost in proportion to the capital employed." It is unfortunate that a writer who has seen so clearly, and stated so accurately, the functions of the entrepreneur and the nature of his earnings, should not have followed his opinions to their logical result and treated those earnings as an element in distribution, distinct, not only from the interest of the capitalist, but also from the wages both of skilled and unskilled labour.

§ 9. Probable influence on the future of the wages question of the views of Jevons, Walker, and Marshall.—The view taken of the wages question by Jevons, Walker, and Marshall may be assumed to represent, not unfairly, the opinions of that class of economists who, while they accept the doctrines of the orthodox or classical English school as being in the main sound, admit, nevertheless, that a considerable portion of those doctrines require to be re-

vised and re-stated, and, in some few instances, to be completely re-cast. These writers have wisely endeavoured to preserve, as much as possible, all that was worth preserving of the work of the founders of the science and their expositors, and have searched carefully, to use an expression of Mr. Mill's, "for every fragment of truth that may lie concealed beneath the ruins of exploded error." This is undoubtedly the attitude of the true philosopher—an attitude of reverent respect towards the great teachers of the science, joined with a determination to hold neither their teachings nor anything else sacred except truth; and who can doubt that an investigation prosecuted in such a spirit will in the end secure to the investigator a rich reward, in the consciousness that he has helped to advance the cause of truth, that he has done something "for the relief of man's estate." And surely in no branch of social or economic inquiry is the discovery of new truth more likely to be followed by an improvement of man's estate than in the one now under examination. The earlier English economists had too little belief in the working classes; they did not see, or at least they failed to keep steadily in view, the fact that their poverty was in a great measure the result of their inefficiency, while their inefficiency was itself kept up by their poverty, which placed education, good food, and acquired skill, beyond their reach. These writers, accordingly, insisted too much on the Malthusian remedy as the *only* one, without dwelling sufficiently on the fact that, if the labourer were once raised from his condition of hopeless degradation, his labour would become more efficient, his

wages would rise, and each successive improvement in his condition would be a stepping-stone from which it might be hoped that he would rise to higher things. Mr. Mill (*Claims of Labour*, *Edinb. Rev.* April, 1845) fixes the publication of Malthus's *Essay on Population* as the date from which the economic condition of the labouring classes began to be looked on by thoughtful men as susceptible of permanent improvement. It was then, he says, that the degradation of the population ceased to be regarded as inevitable —as a provision of nature, an ordinance, as some said, of God. The commencement of an epoch not less important, in the eyes of those who have the welfare of the working classes deeply at heart, may be dated from the full recognition of the fact that, of the agents which co-operate in production, labour is the one which mainly benefits by improved processes and increased efficiency,* and that the rise which takes place in the labourer's condition by reason of his increased efficiency leads to a further increase of his efficiency and a further improvement. Just as economic injuries which degrade labour tend, as Walker says, to deepen and remain, so economic benefits which elevate labour have a tendency to reproduce themselves and lead to indefinite improvement. Each step which the labourer makes forward from a lower to a higher condition makes it *probable* that the preventive check of Malthus will operate

* "It is indisputable that the rates of wages or the amounts of earnings of artizans and labourers in the principal industries have risen in proportion to increasing productiveness."—(Prof. Leoni Lèvi, *Fortnightly Review*, June, 1887, p. 918.)

more freely, and makes it nearly *certain* that the labourer will become a more efficient producer. The importance of these views in their bearing on the future of the labour question is not easy to over-estimate. Let the working classes once become thoroughly convinced that, although the warnings of Malthus are not to be disregarded, there is another cure for the evils they complain of, namely, increased production; prove to them that capital is their ally in production, not their enemy; educate them really and practically into the belief that capital "collects and unites the scattered elements of power, that it economizes their use and organizes their action" (Hearn)—that it gives continuity to labour, increases the skill and energy of the workman, and makes the division of labour and the use of inventions possible—let these views, I say, be once accepted and acted on by the mass of the people, and the long war between labour and capital will be near its close, especially if the working classes can also be brought to see that high interest, so far from being an evil, is the cure for an evil, namely, scarcity of capital, and that the successful entrepreneur, so far from being the enemy and rival of the labourer, competing with him for a share of a common fund, is himself the creator of that increment of value which pays him for his intelligence and skill.

These views are, perhaps, those of an optimist; but I wish to point out that the optimism which they contain is of quite a different kind from that of Mr. Bastiat. His aim was to justify, rather than explain, economic facts; to show, as M. Fontenay expressed it, that that which is, is that which

ought to be. He seems to have thought that the improvement of the labouring classes lay, so to speak, in the spontaneous course of events, and would be brought about, independently of their own efforts, by the operation of those moral and economic laws which he thought were working together for the general good. According to him wages are constantly tending to rise, on account of the substitution which is for ever taking place of "gratuitous co-operation" on the part of nature for human labour, so that a given utility represents an ever smaller and smaller amount of labour. The hopeful view which I take of the future of the working classes is founded on different considerations. I hold that if they are to rise to a higher state they must work out their own salvation, and not trust to the harmonious operation of the laws of nature saving them without any effort of their own. My hope and my belief is that an educated working class will attend sufficiently to Malthusian doctrines, and to the teaching of those writers who have insisted strongly on the connexion between efficient labour and high wages, to save themselves from what Cairnes speaks of as the harsh and hopeless destiny which would otherwise be in store for them. Professor Leslie has well observed that there are two questions on which both labourers and employers should concentrate their attention. "One is, what is the utmost that can be made by capital and labour together? The other, how is the produce to be divided between them? The mistake into which both employers and labourers commonly fall is of attention to the latter only of these two questions; neither looking to the

means by which the total amount to be divided may be raised to the utmost; both looking to extort the utmost possible share of the actual total; neither treating the problem as one of production; both treating it as one of distribution."

§ 10. Theory of Rogers.—All the theories upon which I have hitherto touched recognize, in some degree, however slight, the connection between wages and the efficiency of work. I come now to a theory which ignores any such connection, and which treats the labourer as a domestic animal, or a machine, which cost, to their owner exactly what he must expend to produce them and maintain them in efficient working order. I refer to the theory of Professor Rogers. According to him "the value and price of anything, whether it be work done or labour to be hired, agrees with the cost of making the thing or preparing the labourer" (*Social Economy*, p. 20); and "the reason why one kind of manual labour is worth one shilling a day and another is worth eight shillings, is because it has cost so much more to prepare the latter kind of workman than it has to bring up the former" (p. 19). Again, "the remuneration of the labourer is generally relative to the cost of producing his services; wages are partly interest on capital, partly a sinking fund which replaces the capital as it is gradually extinguished by the growing age or declining strength, or certain wearing out of the labourer; and partly an insurance against risk of premature extinction, or any extraordinary liability to suspension of work in the case of the labourer." (*Political Economy*, p. iii.)

Now, it is not difficult to see the point at which the

analogy which Professor Rogers endeavours to make out between the value of commodities and the value of labour breaks down. The reason why cost of production possesses the power of regulating the normal value of most commodities is, that the producers of any commodity will only continue to produce it on condition that its value, when produced, will defray the cost of its production. But producers of labourers make no calculations of this kind. Not only is there no analogy, there is an actual antithesis, between the production of commodities and the production of labourers. The former, as Cairnes has observed, is an onerous act, which will only be undertaken in prospect of reward; the latter, so far from being an onerous act, is one which it requires a prospective reward to induce men *not* to perform. Even when the question is, not the bringing of labourers into the world, but educating them after they are in it, and preparing them for the labour market, we find that the considerations which influence the persons upon whom the cost of fitting them for that market falls are entirely different from the considerations which act upon the producer of commodities. Until a boy reaches the stage of technical or professional education, his education is not conducted with a view to what he can afterwards earn. Two fathers, one of whom intends his son for an industrial career, while the other does not intend his son for any trade or profession, will, up to a certain point, educate them alike. Each will give his son the education which is customary in the particular rank in life to which he belongs, and it is only towards the close of his education that the father, who

wishes to prepare his son for an occupation, will be guided by industrial considerations. In slave countries, indeed, labourers *are* produced, like other commodities, solely with a view to the market, and in such countries accordingly Professor Rogers' theory holds true. The importer or breeder of slaves is actuated by purely mercantile motives, and the education of a slave is conducted entirely with a view to making him as efficient a producer as he can be made, or at least efficient as the breeder thinks it will pay to make him. When his education is finished, and his career as a labourer commences, he receives exactly what his owner considers necessary to keep him in working order, just as a steam engine is supplied with so much fuel as is enough to get the maximum of work out of it, and no more. If the labour of a slave becomes more efficient he gains nothing, whereas, in a free country, the moment labour becomes more efficient the capitalist bids a higher price for its aid, and so the labourer obtains his share of the increased product; that is, the free labourer will receive more or less according to his efficiency, without regard to what it may have cost to rear and educate him. If the natives of India were to be suddenly endowed with the mental and physical vigour of English or American workmen, the efficiency of their labour would be many times increased, and their wages would rise —a fact just as inconsistent with Professor Rogers' theory of wages as I have already shown it to be with the theory of the wages-fund. Professor Rogers, indeed, seems to have felt the objection to his theory that it applies to the case of free labour, a principle which only holds true of slaves and

machines. "The character," he says, "of a labourer's maintenance is matter of general habit or tradition. It cannot be determined at the discretion of his employer. The owner of a steam engine may study the cheapest way in which he may supply the fuel needed for the force he calls into operation; but he cannot study these economics in dealing with free labour." (*Political Economy*, p. 64.) This objection, which is fatal to his theory, he attempts to meet by saying that when the customary food of the labourer is costly his wages will be high in proportion, and that the reason why his wages are high is that his customary requirements render his education and bringing up expensive. But how does this agree with the fact, that an increase in the efficiency of a body of labourers will cause a rise in their wages, although the sum spent in rearing and educating them remains the same? The wages of the free labourer rise as he becomes more efficient, because the value of the article—labour—which he has to dispose of, has increased, and being a free agent, he can sell it for what it will bring. The slave cannot do this, because his mental and physical powers belong to his master, to whom all gain arising from his increased efficiency must go.

§ **11. Theory of Roscher.**—Having now glanced at the principal theories of wages which have been taught by English and American economists, I shall give a short account of the theory put forward by Roscher, taking him as fairly representing the German historical school. Labour, according to him, is a commodity, and its "immediate" or market price is determined—like that of every other com-

modity—by the relation of demand and supply. The value of labour, however, must, as in the case of other commodities, conform in the long run to its cost of production, and the cost of production of labour "embraces not only the necessary or customary means of subsistence of the workman himself, but also of his family; that is, of the coming generation of workmen; and the number of the latter depends essentially on the demand for labour." Like Adam Smith and Ricardo, Roscher admits that the ideas conveyed by the expressions "necessaries of life" and "standard of decency" are relative ones, and vary in different ages and countries, according to the habits and customs of the people; and therefore, he thinks that the working classes hold in their own hands the principal elements which determine wages, and have no right to complain of an "iron law," which is for ever dragging wages down to the subsistence minimum. Every increase in wages must produce an increase in the number, or in the well-being, of the workmen, and it is in their own power to decide between the two alternatives. Up to this point the view of Roscher bears a striking resemblance to that of Ricardo; but when he proceeds to state what it is that constitutes the demand for labour, we find a divergence from the Ricardian doctrine. Still following the analogy of other commodities, he tells us that the demand for labour depends, (1) on its value in use, (2) on the purchaser's power to pay for it. "These two elements determine the maximum limit of wages, as the means of support considered indispensable by the workmen, determine the minimum." Labour being a commodity universally

desired, "the purchaser's capacity to pay for it must be nearly commensurate with the national income." The direction which national consumption takes determines the *relative* amount of different kinds of labour, and the direction of the national consumption depends on the distribution of the national income. In a country which neither produced nor imported any articles except those consumed by labourers, the rate of wages would be determined exclusively by the ratio between the number of the working population and the amount of the national income.

Now, the first idea which presents itself to a person hearing this theory stated for the first time is, that it seems to involve that most pernicious of economic fallacies—that a demand for commodities is a demand for labour. But before charging Roscher with having made so vulgar a blunder as this would be, it is necessary to call to mind the vital distinction which Cairnes has pointed out (*Leading Principles*, Part I. chapter ii.) between supply and demand as related to particular commodities, and supply and demand considered as aggregates. He shows that supply and demand as related to particular commodities are independent phenomena, either of which may increase or diminish irrespective of the other, while, considered as aggregates, they are strictly interdependent, and increase or diminish together. In this latter aspect, he tells us supply and demand are the reciprocals of each other; they are not so much separate facts as opposite faces of the same facts. Demand as an aggregate cannot increase without supply, nor supply without demand. Now, when Roscher speaks of the demand for labour as being

commensurate with the national income, and the national income as being identical with the demand for commodities, (labour being, according to him, a commodity) it is evidently demand in the aggregate that he means; and therefore, his doctrine comes in the end to this: that, in a country which only produced or imported commodities consumed by labourers, wages would depend on the ratio of the working population to the amount of the aggregate supply of commodities—for the terms aggregate supply, aggregate demand, and national income, are really different expressions for the same thing. If, then, the aggregate supply is what constitutes the demand for labour, and so determines wages, it is evident that wages must depend on the efficiency of labour; for on what does the aggregate supply of commodities itself depend but on the efficiency of the labour force of the country? I am of course aware that the number of productive labourers is also an important factor in determining the aggregate product; but when we are considering the *aggregate* labour and the *aggregate* supply of a country, a transfer of labour from unproductive to productive employment is equivalent to an increase in the efficiency of the total labour force of the country. Take the case of a country which has 1,000,000 productive labourers and 100,000 soldiers, and which is just passing from the stage of increasing, to that of diminishing, returns. If the army is disbanded, and the soldiers become producers, the labour force of the country is increased by a tenth, and the aggregate supply, that is, the national income, will increase in proportion. It is as if an individual workman, who had been obliged to use one arm to defend himself

against mosquitoes, while working with the other, were suddenly enabled to use both arms to work with; his efficiency would be increased. In the same way, the aggregate labour force of a country becomes more efficient by a transfer from the ranks of unproductive, to those of productive, labour; and the effect which the change will produce upon wages will depend on the extent to which the labour which has been transferred from unproductive to productive employment is applied to the production of commodities used by labourers.

It would seem then, that Roscher's theory is capable of an interpretation which exonerates him from the charge of reviving the old and mischievous heresy which made the demand for commodities a demand for labour. What he really asserts is that the demand for labour depends, (1) on its value in use, (2) on the purchaser's power to pay for it, which is coincident with the total supply of commodities, and that supply depends on the efficiency of the labour force of the nation—it being understood that the efficiency of the national labour force is increased, not only by anything that adds to the efficiency of individual labourers, but by anything which increases the proportion which the number of productive labourers bears to the population. Roscher's doctrine is thus a closer approximation to that of the modern English school than it seems at first sight to be. It is however important to note that, although a leader of the school which is *avide des faits*, his theory is not true of nations as we find them, but only of imaginary communities which only produce and import commodities which the labouring classes

consume. Suppose one half of the labour of England to be employed in producing luxuries, while the other half produces commodities used by labourers; if that half of the labour which produces luxuries becomes doubly efficient, the national income and supply of commodities will increase fifty per cent., but wages will not necessarily rise. But if that half of the national labour which produces labourers' commodities becomes twice as efficient, the national income and the aggregate supply will increase, as before, fifty per cent., but wages will rise one hundred per cent.

Professor Cairnes, in criticising, as he has done with great severity, Mr Longe's pamphlet, has given, what he considers a *reductio ad absurdum* of the doctrine that wages depend on the gross produce or aggregate demand of a country. He shows that the production per head of the population in America is approximately the same as in the United Kingdom, although wages are considerably higher in the former country, and he asks how could this be so if the supposed connection between gross produce and wages existed. But, assuming the facts on which Cairnes argues to be correct, the explanation of wages being higher in America, while the gross produce is only the same as in the United Kingdom, is evidently this. In America the part which immediate labour takes in production is proportionally greater than in England, partly on account of the nature of the national industries, and partly because England has reached a more advanced stage of economic development in which fixed capital and mechanical substitutes for labour are very largely used. Hence, the need which the English capitalist

has for the co-operation of direct labour is less than that which the American capitalist experiences; and that part of the gross produce which is due to fixed capital in England, being proportionally greater than in America, the share which remains for the labourer is less. If Professor Cairnes could have taken for the purpose of his comparison two countries in the same stage of economic development, in which the national industries were of a similar character, and in which no commodities were produced or imported, except those consumed by labourers, but in one of which the production per head of the population exceeded that of the other, he would, doubtless, have found a corresponding difference in the rates of wages which prevailed.

§ 12. Socialist Theories: Karl Marx, Henry George. —An account of the various theories of wages which omitted to notice the socialist theories would be hardly complete. I therefore propose, before I conclude, to give an outline, necessarily brief and imperfect, of the views taken of the wages question by two socialist writers of very different complexion—Karl Marx and Henry George.

The first of these writers, the author of what has been called "the sacred book of contemporary socialism," has directed his attack chiefly against what he considers the tyranny of capital, while the second has undertaken to prove that the monopoly of land by private owners is the cause of low wages in all old countries, and the remedy which he proposes is that the state should appropriate, by taxation or otherwise, the rent of land so as to extinguish the monopoly of private ownership. It is fair to both these

writers to admit that, however they may have laid themselves open to the charge of economic heresy, no one can accuse them of economic ignorance. They both accept current economic doctrines up to a certain point, and each of them in fact erects for himself a platform of economic principles from which to deliver his attack upon that part of the existing industrial *regime* which he has selected for destruction.

Karl Marx rests his argument on two principles which he adopts from Ricardo. (1) The principle that value is simply labour embedded in the product; (2) the principle of natural or necessary wages, and their dependence on the cost of the labourers' subsistence. He omits, however, Ricardo's limitation of the first of these principles to the case of commodities which do not possess a scarcity value, and refuses to admit that utility, independently of labour, can, in any case, confer value. Since value is nothing but labour fixed in the product, he argues that all capital, except what is spent in advancing wages must be unproductive; the value of the materials, fixed capital, etc., is carried forward and reappears in the product, but it is so carried forward by labour, to which alone the result is really due. Labour *preserves* the old and *creates* the new value. "That part of capital," he says, "which is represented by the means of production, by the raw material, and the instruments of labour, does not, in the process of production, undergo any quantitative alteration of value. I therefore call it the constant part of capital. On the other hand, that part of capital represented by labour power does, in the process of produc-

tion, undergo an alteration in value. It both produces the equivalent of its own value, and also produces an excess, or surplus value, which may itself vary according to circumstances; I therefore call it variable capital." (*Capital*, p. 191–2.) He therefore thinks that the whole of the new value which the commodity contains should belong to the labourer, the capitalist's only just claim being to the replacement of his capital. The value of a diamond found without labour he explains, as Lasalle would have done, by saying that it depends on the labour "socially necessary" to produce diamonds; that is, on the average labour undergone by diamond-finders. The "necessary time of labour" Marx defines as the time in which a man produces what he requires to keep him alive and in working order, and the value which he creates in that time is "necessary value." The "surplus time of labour" is the rest of the working day, and "surplus value" the value which owes its existence to the labourer's work in that time. If the labourer's subsistence is cheapened, his efficiency increased, or the working day extended, surplus value increases; that is, profits rise. Surplus value being thus only another name for profits, this view leads Marx directly to the conclusion that fixed capital, division and combination of labour, inventions—in a word, all expedients for cheapening production—are only devices for increasing profits, and the labourer is, under the existing industrial system, excluded from a share in the benefits which arise from them.

The obvious and fatal defect in Marx's theory of value, on which, as we have seen, his theory of wages depends, is

that it excludes from value the element of utility, and defines it in terms of labour alone. The obvious and unanswerable reply to his argument, that labour alone creates, and should therefore own, the whole of the new value which resides in the product, is that in civilized societies labour without the help of capital is as helpless as capital would be without that of labour. Either of them alone is unproductive. This objection he is forced to notice, but he passes it by without any real answer. He represents the capitalist as asking, "Did I not supply the labourer with materials by means of which, and in which alone his labour could be embodied, and have I not also provided him with the necessaries of life, and am I to be allowed nothing in return for this?" And he answers: "Well, but has not the labourer rendered him the equivalent service of changing his cotton and spindle into yarn;" to which one might expect the capitalist to reply: "No, he has not rendered me the full equivalent unless he pays me for having abstained from the immediate consumption of my capital."

As to depriving the capitalist of his reward for the part which he bears in production, it is difficult to understand how anyone writing as the friend of the working classes could make a proposal so fatal to their interest. Abstinence and accumulation, even on the part of the labourers themselves, would cease, and the ruin of the working classes would be the sure consequence of such a measure. If the state were to appropriate the capital of the nation and lend it to the workmen on the terms of their replacing it without interest, this would be mere robbery of the capitalist for the

benefit of the existing generation of workmen. I say for the benefit of the existing generation, because the momentary rise of wages would probably be followed by an increase of population, which would bring them back to their former level, and no future growth of capital could be expected. The radical error in Marx's view of the labour question is the idea that whatever increases production does so, under the capitalist system, for the benefit of the capitalist alone. He regards the whole of the "surplus time of labour" as spent in producing profits, and he denies by implication that the labourer ever gains by an increase of his own efficiency. This is just the reverse of the truth, for it is the labourer who *ultimately* (subject to the exception I have already noticed as to the cheapening of luxuries) reaps nearly the whole benefit of cheap production, although I admit that under the capitalist organization of industry the capitalists may *for a time* succeed in appropriating more than their fair share of the increased "surplus value" resulting from increased efficiency. If co-operative industries were everywhere substituted for those now conducted by capitalists, and were managed with the same energy and skill, the labourers would, no doubt, gain more immediately than they now do by increased productiveness. That part of the immediate gain which is now intercepted by the capitalists would go to the workmen directly either as wages or as profits. But it is not a true co-operative system which Marx proposes to substitute for the existing system. It is one which would discourage accumulation, abstinence, and invention, and which would go far to stereotype industry

and make increased efficiency impossible. Such teaching may, as Mr. Mill said, burst society asunder by a socialist revolution, but the poor and their poverty it will leave worse than it found them.

View of Mr. Henry George.—According to Mr. George production is the mother of wages in political economy, as freight is the mother of wages according to the maxim of admiralty law. This view, in which I concur, and which is now adopted by probably a majority of living economists, he carries much further than sound economic principles justify, for he maintains that not only are wages not paid out of capital, but they are not, in any case whatever, even advanced out of it. He denies that industry is limited by capital, and asserts that "the payment of wages in production, no matter how long the process, never involves any advance of capital, or even lessens capital." So far from the capitalist advancing his wages to the labourer, he holds that it is the labourer who makes an advance to his employer in all cases in which labour is rendered before wages are paid. Take, he says, a man at work on a steam-engine or a ship. Every moment that he works he creates a value; that is, makes a capital, which becomes immediately the property of his employer, and the "advance of capital" thus made by the labourer is repaid to him when he receives his wages. He compares the labourer to a depositor in a bank, who must pay money in before he can draw upon it. The real nature of the transaction between the workman and his employer is, he thinks, obscured by the use of money. In the exchange which takes place between them the work-

man gets money, the employer gets an increment of value in the commodity, and since a man with money can buy commodities more easily than a man with commodities can buy money, it seems to the vulgar apprehension that an advance of capital to the workman has taken place. Mr. George here misses, or perhaps does not choose to see, the real point, which is that the workman receives his wages in such a shape that he may go at once and buy his dinner with them, whereas the master gets his increment of value in the commodity in such a shape that he must wait for months, it may be for years, before he can get anything for it. If money were unknown, and the labourer were paid in commodities in a marketable shape, the only difference would be one of convenience to the labourer in spending his wages. He would still have received his wages in an available shape, while the employer's increment of value would still be imprisoned in the product, incapable of being realized until it came to market. It might have been expected that these views would land their author in a denial of the validity of the capitalist's claim to any return upon his capital, and one is curious to see how he evades that conclusion. Capital, he informs us, aids labour in three ways; (1) by adapting natural products, and fitting them for satisfying human desires; (2) by utilizing the vital forces of nature, as by raising animals or plants; (3) by increasing the sum of utility by exchange. Capital employed in the second and third of these three ways has a moral claim to remuneration, because the increase of value which its use causes springs from the reproductive forces of nature and the capacity

for exchange, and since capital, or rather abstinence, is remunerated when employed in the two latter ways it must be remunerated when employed in the first, because neither labour nor capital will seek any mode of employment while any other mode is open to them which will yield a higher return. Having in this way satisfied himself that interest is a necessity, he proceeds to inquire how the rate of interest is regulated. The maximum rate is that above which borrowing would involve a loss; the minimum, that below which accumulation would cease. The normal point lies between these two, and must be such that, all things considered, the reward of capital and labour will be equal, "labour and capital being but different forms of the same thing—human exertion." Interest being thus determined, wages will depend on the productiveness of labour at the margin of cultivation. Where land is "free," and labour works unaided by capital, wages will absorb the whole product minus interest as above determined. Where rent exists, wages will be equal to the product at the margin of cultivation, minus rent and interest. In this last state of things, land having become private property, and natural opportunities being monopolized, wages may be forced down to the lowest point at which the labourers will consent to reproduce. This brings Mr. George to the real object of his book, which is to show that private ownership of land is the cause, and "free" land the cure, for the poverty which, he maintains, accompanies progress. I need not say that he fails to establish his conclusion; and can only express my astonishment that so able and ingenious a writer should be,

apparently, unable to see that in populous countries rent must exist whether the land is held by the state or by private owners, and that a transfer of it can only benefit the person to whom, and injure the person from whom, it is transferred, unless full compensation is given. If the land of England were nationalized to-morrow, rent would not be annihilated, and as the margin of cultivation would remain where it is, and as Mr. George holds that wages depend on the productiveness of labour at that margin, it is not easy to see how the nationalization of land would, on his principle, benefit the labourer. It is to be observed that by making land "free," Mr. George does not mean releasing it from the absurd fetters with which the real property law of England has bound it, which check the investment of capital in agriculture, and impede the transfer of land to those who would make it more productive. This, no doubt, would do something to improve the lot of the labourer, and Mr. George would have nothing to say against it; but by free land Mr. George means at one time land in the ante-rent stage of cultivation, at another, land which is the property of the state; and to speak of land as free because it is owned by the state, and to speak of it as free because it is unlimited, is to confuse two perfectly distinct ideas. A large addition of fertile land to the soil of England would make labour at the margin of cultivation more productive, would raise wages, or give room for an increased population at existing wages. But how these consequences would follow from making land free in the other sense Mr. George has not shown. When he shall have devised a plan

for making land free in the sense of being fertile and unlimited in quantity, he will have brought the working classes to the goal to which he is now trying to bring them by a road which does not lead there at all.

As to Mr. George's account of the conditions which determine the rate of interest, the objections to it are obvious. We possess no common denominator by which to compare the sacrifice of the labourer with that of the capitalist, or even the sacrifice involved in any given labour with that involved in the labour which produced the capital which aids it. It is thus absurd to speak of interest settling at a point "which will give an equally attractive result for the exertion or sacrifice incurred" by labourer and capitalist, and Mr. George may well say that it is "perhaps impossible to formulate this point, as wages are habitually estimated in quantity, and interest in a ratio." The difficulty as to the earnings of the entrepreneur Mr. George has entirely ignored, an omission which is the more remarkable on account of the admirable manner in which this part of the subject has been dealt with by his countryman, Professor Walker. In such a country as America, where trade is constantly changing its channels, versatility and vigilance on the part of those "captains of industry," whose business it is to watch and profit by these industrial transitions, is of peculiar importance, and the functions of the entrepreneur and the nature of his earnings claim in a special degree the attention of economists. On the whole, it seems to me that Mr. George's theory of wages, although it contains a portion of truth, is still very defective; and his remedy for low wages is one

in the efficacy of which it is difficult to believe that he can be himself an entire believer.

§ 13. The connection between money wages and efficient work clearly established by Cairnes and Senior.—It is a remarkable fact in the history of the wages question that by no writers has the connection between *money* wages and the efficiency of work been placed in a more clear and striking light than by Senior and Cairnes, two of the stoutest champions of the wages-fund theory. Senior, in his admirable lecture on the cost of obtaining money, has shown that what its money costs to a nation is, to use Adam Smith's expression, "the toil and trouble of acquiring it." If a country possesses gold and silver mines, the cost of money to it is regulated by the fertility of the mines and the efficiency of mining industry. If it does not possess them, then the cost of its money depends on the efficiency of its labour in producing whatever commodities command the highest value in the mining countries; and wherever the cost of obtaining money is low, wages—that is, money wages—will be high, and they will be low where that cost is high. So also Cairnes, in his essays on the gold trade, has, with singular felicity, applied Senior's principles to the solution of the problems to which the Australian and Californian discoveries gave birth. Regarded in its economic aspects, he tells us, the discovery of gold in Australia may be described as an occurrence by which a common labourer was enabled, with little capital or skill, to obtain about a quarter of an ounce of gold in a day. The immediate result was a great rise of money wages throughout the

country. "Why," he asks, "is the price of labour so high in Australia? The answer is because the cost of gold is low, *the rate of money wages always rising and falling as the facilities for producing gold increase or diminish.*" The arguments by which these two writers have established the connection between money wages and the efficiency of labour in the production (or acquisition) of gold are plainly unanswerable, and they admit of a wider application. For if the cost of obtaining gold, that is the efficiency of labour in the production of it, is what fixes money wages, it follows that the cost of obtaining *any* commodity, that is, the efficiency of the labour which produces it, must regulate wages measured in that commodity. If, in a country which grows corn, the cost of producing corn falls, corn wages will rise just as money wages rose in Australia. If the country does not produce corn, corn wages will rise upon any occurrence which enables it to obtain its corn more cheaply. For it is important to notice that a labourer benefits not only by any cause which renders his own labour more efficient in producing necessaries, but by whatever makes that labour more efficient which produces commodities for his consumption. Corn wages would rise in England as a consequence of any event which facilitated the production of corn in America, or which cheapened the production of the commodities by the instrumentality of which we obtain our imported supply of corn. If we want to know whether wages measured in any particular commodity have risen, we must inquire, (1) whether the production of that commodity has become cheaper, (2) whether labour has become more efficient in

the production of other things by the exchange of which the commodity in question can be obtained. As Mr. Shadwell has well observed, "The power of the labourer to obtain any commodity depends on its cost of production, and his general command over commodities is the complex result of the efficiency of labour in many different employments."

§ 14. The connection between real wages and efficient work recognized by almost all economists. —It is a striking tribute to the substantial truth of the theory according to which wages depend on the efficiency of work, together with the intensity of the demand on the part of the capitalists for the aid of labour, that, of the theories which I have noticed in the preceding pages, all, with the exception of the theories of Professor Rogers and Karl Marx, recognize a connection, more or less intimate, between the efficiency of work and the amount of wages. Adam Smith must have perceived the connection when he said that what a thing really costs is the toil and trouble of acquiring it, for it follows from this that a reduction in the toil and trouble to the labourer of producing the articles which constitute his wages, that is, an increase in his efficiency, is equivalent to a rise of wages. Again, in speaking of the original state which precedes the accumulation of stock and the appropriation of land, he admits that "the produce of labour constitutes its natural recompense," and he tells us that had this state continued, "the wages of labour would have improved with all those improvements of its productive power to which the division of labour

gives occasion." So also Ricardo, as I have already noticed, admits a connection between efficient work and high wages, saying, "that in different stages of society the accumulation of capital or the means of employing labour is more or less rapid, and must in all cases depend on the productive powers of labour;" and his implied admission that the natural rate of wages varies with the margin of cultivation is a recognition of the same fact. Cairnes and Senior, as I have shown, not only recognize the causal connection between efficiency of labour and money wages, but strongly insist on it, and conclusively prove it. Professor Sidgwick has asserted (*Pol. Econ.* p. 312) that the wages-fund theory not only does not make efficiency of labour a prominent element in the determination of wages, but leaves it entirely out of account. This, I think, is too strongly stated, for no advocate of that theory has, so far as I know, denied that an increase in the efficiency of labour is favourable to the growth of the wages-fund. Thus we find Senior stating (*Lectures on Wages*, Introduction, p. iv.) that "the principal means by which the fund for the maintenance of the labourers is increased is by increasing the productiveness of labour;" and again (*Lectures on Wages*, p. 48), "If machinery be applied to the production of commodities used by labourers, the rate of wages will rise." Cairnes, too, admits (*Leading Principles, Etc.* p. 232) that "everything that tends to increase wealth and render industry more productive must favour the growth of the wages-fund," and he is never tired of asserting that, viewing production as a continuous act, the product is the fund from which the remuneration of capital and labour

is derived. Mr. Mill also, and indeed all economists with hardly an exception, when explaining the high rate of wages usually prevailing in new countries, do so by reference to the productiveness of labour in raising food and other necessaries for the labourer.

§ **15. Summary.**—I have endeavoured in the foregoing pages to show that although Adam Smith and Ricardo cannot be said to have themselves held the doctrine of the wages-fund, nevertheless that theory was the result of the direction given by them to the current of economic thought, joined to the condition of the English industrial world at the commencement of the present century. I have shown that as that theory owed its rise to the tendencies of economic speculation and to certain external conditions which favoured its growth, so it owed its fall more to a general change in those tendencies and in those conditions than to the direct attacks of the writers to whom its destruction is commonly ascribed. It is even possible that Mr. Mill's conversion may have been due, more than he was himself aware, to the effect produced by a change in the general tone of thought upon a mind singularly open to new convictions, and a nature far too loyal to truth ever to sacrifice it to the pride of an obstinate consistency. I have shown that, the theory having been abandoned by its most powerful champion, an attempt was made by one of his favourite disciples to rehabilitate it and establish it on a sounder basis. I have shown that, this attempt having, in the opinion of most persons, proved a failure, not indeed from any want of ability in the writer who undertook it, but from the diffi-

culty or impossibility of the task, various theories were put forward to fill the gap which had been created in economic doctrine. That of Jevons, which is the first of these that I have noticed, resembled in many points the theory which Longfield had, apparently without the knowledge of Jevons or any English writer, advocated in the earlier part of the century; and the theories of Walker and Marshall, who may, I think, be described as the inheritors of the traditions of the classical English school, are developments of the theory of Jevons. These theories all agree in the great prominence which they give to the connection between wages and the efficiency of work—a doctrine, the importance of which in its bearing on the future of the labour question seems to me incalculably great. It teaches the labouring classes that, although their interests require that population should be kept within due bounds, and that capital should be plentiful, there is also hope for them in the infinite possibilities of the future—in the education of the labourer, in the march of invention, in the ever-extending dominion of man over matter. It teaches the labourer (at least as Walker taught it) that the successful entrepreneur is not his rival but his ally, by whose aid inventions will be turned to the best account, industry will be made more productive, and the best markets will be secured. Surely it is no small thing that the labourers, instead of expending their force, and often wasting it, in a struggle with their employers for a share of the product, should learn to use it in co-operating with their employers in trying to increase to the utmost the product from which both are paid; and surely it is well, as

Professor Walker has said, that the labourer should look upon his wages as finding their measure, not in a past, of which the accumulations have been plundered by class legislation and wasted by dynastic wars, but in the available present, in the larger, the freer, the more fortunate future.—(Walker on *Wages*, p. 411.)